

California Regional Water Quality Control Board
Santa Ana Region

September 17, 2004

ITEM: 9

SUBJECT: Appeal to the Regional Board for an Exemption from the Minimum Lot Size Requirement for the use of an Alternative Disposal System– Kurt and Mary Johnson, 13537 Mesa Verde Drive, Yucaipa, Riverside County, APN 322-831-25

DISCUSSION:

On July 8, 2004, Architect Michael Hummel contacted staff on behalf of Mr. and Mrs. Johnson requesting approval for the use of a second septic tank-subsurface disposal system at the above-referenced site. The property is just under one-half acre in size (20,824-sq. ft. or 0.47 acre net) and is located outside the Yucaipa/Calimesa Subsurface Leaching-Percolation System Prohibition area. The Johnsons reside in a 3-bedroom, 2-bath house located at the site. Domestic waste from the residence is discharged to an existing subsurface disposal system. This area of the County is unsewered and on-site septic tank-subsurface disposal systems are utilized for disposal of domestic wastes. The Johnsons' residence was constructed prior to the minimum lot size requirements. Consequently, the use of the existing septic tank-subsurface disposal system has been exempt from the minimum one-half acre requirement. The Johnsons' proposed second dwelling unit would be a freestanding structure. As such, the project as a whole (the existing house and second home) must be considered a "new" development and the one-half acre minimum lot size requirement would apply. To satisfy the MLSRs, the existing house and proposed second home would each require one half-acre, for a total lot size of one acre. With a density of 0.235 acres per dwelling unit, the Johnsons' proposal does not comply with the Board's minimum lot size requirements. Accordingly, Board staff denied the Johnsons' request for an exemption from the minimum lot size requirements. The Johnsons appealed staff's denial of an exemption from the minimum lot size requirements to the Regional Board.

At the August 13, 2004 Board meeting, the Board postponed action on the Johnson's appeal and advised the Johnsons to work with Board staff to locate an acceptable offset which could allow the Johnsons to proceed with their project as proposed. On August 18, 2004, Board staff advised the Johnsons to contact the Yucaipa Valley Water District for a possible offset.

On August 19, 2004, the Johnsons revised their plans and are now proposing to construct a second dwelling unit on the lot and install an alternative disposal system. The alternative disposal system would serve the existing house and the new proposed second dwelling. The system being proposed is an ETL Testing Laboratory and National Sanitation Foundation (NSF) listed aeration type activated sludge treatment system called "retroFAST .375" which is designed to accommodate treatment of 375 gallons per day of residential wastewater. The existing system will also be modified by adding a 500-gallon septic tank (used as settling tank) between the second residence and the existing septic tank. To ensure equal flows with the existing leach lines, an additional leach line equal in size to half the existing leach field is being connected to a distribution box.

On October 13, 1989, the Regional Board adopted a Basin Plan amendment that requires new developments for which on-site subsurface disposal system use is proposed to have a minimum of one-half acre of land per dwelling unit. The Board found that it was necessary to limit the density of new subsurface disposal systems to control the nitrate quality problems found in the groundwaters of the Region. Aside from the offset program, the Board also included an exemption criterion that stipulates that the proposed use of an alternative treatment system for sewage disposal shall be reviewed on a case-by-case basis and shall be submitted to the Regional Board for consideration.

According to materials provided to Board staff by the Johnsons and the manufacturer, the proposed alternative disposal system is designed to provide advanced treatment of wastewater, including clarification, aeration, nitrification/de-nitrification and activated sludge treatment. The documentation submitted claims a total nitrogen reduction of approximately 70 percent. The product water will be discharged to a leachfield and also used for landscape irrigation via a subsurface drip irrigation system. The Johnsons propose to enter into a maintenance agreement with a qualified engineer for the operation of this alternative system. In addition, the Johnsons have agreed to conduct quarterly monitoring of the system for nitrate. San Bernardino County has advised Regional Board staff that the Johnsons will be required to obtain an annual permit for the operation of the alternative system and that the County will annually inspect the system to determine if the alternative system is operating as required.

Should the alternative disposal system not operate as required, the Johnsons propose to eliminate the alternative system and to implement an acceptable offset so the second unit dwelling could remain on their property.

RECOMMENDATION:

Approve Mr. and Mrs. Johnson's request for an exemption from the minimum lot size requirements for the use of an alternative disposal system with the following stipulations: 1) The Johnsons shall enter into an agreement with a qualified engineer for the operation and maintenance of the alternative system. A copy of this agreement shall be submitted to the Regional Board, and 2) The Johnsons shall conduct quarterly sampling for one year to determine the nitrate (as N) concentration in the effluent and submit those analyses to the Regional Board office within 30 days after such sampling and analysis has occurred.

Comments were solicited from the following agencies:

State Water Resources Control Board, Office of the Chief Counsel – Jorge Leon
San Bernardino County Environmental Health Services – Ray Britain/Mike Farrell
San Bernardino County Department of Building and Safety – Barbara Johnston
City of Yucaipa, Building and Safety
Michael Hummel, Architect
Dorado and Dorado Construction – Nick Dorado